

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	A systematic review of psychosocial needs assessment tools for caregivers of paediatric patients with dermatologic conditions.
<b>AUTHORS</b>	Walsh, Carleen; Leavey, Gerard; McLaughlin, Marian

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Tomas Aragones, Lucia University of Zaragoza
<b>REVIEW RETURNED</b>	20-Aug-2021

<b>GENERAL COMMENTS</b>	<p>This is a very ambitious paper, however, the objectives which were well defined in the PROSPERO protocol are not clearly defined in this manuscript.</p> <p>There are discrepancies in the literature search used between the PROSPERO protocol published and the methods used in this paper. The dates referred to in the protocol do not coincide with the ones mentioned in this manuscript. The inclusion criterion is also different. The method used to carry out the systematic review is not clearly structured and defined so that the reader could replicate the study.</p> <p>The validity of the instruments included is not mentioned. The methods need to be revised, and the results should be rewritten more clearly.</p> <p>Finally, the conclusions do not support the findings, it is too unspecified.</p> <p>The authors should either change the paper to a literature search on the topic or the PROSPERO protocol should be followed. The topic deserves being published.</p>
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<b>REVIEWER</b>	Bellodi Schmidt, Fernanda University of Miami Miller School of Medicine
<b>REVIEW RETURNED</b>	03-Sep-2021

<b>GENERAL COMMENTS</b>	<p>Upon reading the abstract, it was not clear to me that the manuscript was focused on the needs of caregivers of pediatric patients with dermatologic disease. Pediatrics is not mentioned in the abstract at all. The term "dermatological caregiver" seems misleading here, and can be interpreted as a healthcare worker who provides dermatologic care. I would use instead "caregivers of pediatric patients with dermatologic conditions/needs".</p> <p>Page 7, line 35 - Patient and public involvement (PPI)</p> <p>RESULTS</p>
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	<p>I agree with importance of this review and how the overall health and quality of life of caregivers is overlooked. This is an excellent discussion of methodology and gaps in current assessment tools, however would like to see comments on feasibility of routine application of these tools in clinical setting in the discussion. These tools are certainly very valuable for research purposes, but I am yet to meet a provider who routinely has the time and resources to apply this routinely in the increasingly demanding and busy clinical practices.</p> <p>page 21, line 30 - The generalization that all or most skin diseases are "characterised by unpredictable episodes in symptom severity" is inaccurate.</p> <p>On your discussion, when providing recommendations for key directions for future research, I would suggest commenting on the practical application of these assessment tools - they are only valuable and impactful if they are simple enough to be used on a daily basis in practice.</p>
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#### VERSION 1 – AUTHOR RESPONSE

Reviewer: 1 Dr. Lucia Tomas Aragones, University of Zaragoza	Author(s) Response
The objectives which were well defined in the PROSPERO protocol are not clearly defined in this manuscript.	Thank you. The objectives, as outlined in PROSPERO, are now included in the 'Background' of the abstract and are addressed in the results and discussion sections
There are discrepancies in the literature search used between the PROSPERO protocol published and the methods used in this paper. The dates referred to in the protocol do not coincide with the ones mentioned in this manuscript.	<p>Thank you for highlighting this. The first author can confirm that they have requested a revision to the protocol registered in PROSPERO to reflect that:</p> <ol style="list-style-type: none"> <li>1. Preliminary searches were conducted from 21 October 2019 to 01 January 2020. This time was used to tailor the comprehensive search strategy to the specifications of each of the databases searched and were developed in collaboration with a subject-specific librarian (J.A.). The search strategy development process is now included as Supplementary Information file 1.</li> <li>2. The anticipated search start date outlined in PROSPERO (21 October 2019) was delayed until 01 January 2020 (actual start date). Searches occurred between 01 Jan 2020-01 April 2020.</li> <li>3. The actual completion date of the initial review manuscript was delayed until 21 June 2020.</li> <li>4. All search results were updated due to peer review feedback (01 April 2020 to 05 October 2021).</li> </ol>

	<p>The main manuscript has been updated also to reflect these date changes and includes a subheading 'amendments to protocol' at the end of the manuscript.</p> <p>Figure 1 now reflects the search from 01 Jan 2000 to 05 Oct 2021.</p> <p>However, to improve transparency of the search, two additional PRISMA flow diagrams have now been included for the initial and updated searches (Supplementary Information file 5). In addition, the methodological domains included in the risk of bias assessment criteria is included in Supplementary Information file 4 for ease of interpretation for the reader. Evaluation of the risk of bias (as per assessment criteria for each reviewed tool) is also tabulated in the main body of the manuscript (Table 4).</p>
The inclusion criteria are also different.	<p>Thank you. The first author can confirm that they have requested a revision to the protocol in PROSPERO to change the stated 19-year search period limit to a 21-year search period limit. This revision will reflect the necessary date change as outlined above. All other inclusion criteria are identical between the protocol and manuscript. The main manuscript has been updated also to reflect the date change in 'Inclusion Criteria'</p> <p>One additional exclusion criterion was necessary to include since peer review in the PROSPERO protocol revision due to the updated search request from the Editor. This exclusion criterion is 'Assessment tool already identified in the initial search'. This updated exclusion criterion is now included in Figure 1 which reflects the search from 01 Jan 2000 to 05 Oct 2021.</p> <p>To improve transparency of both the initial and updated search, the supplementary Information files now contain:</p> <ul style="list-style-type: none"> <li>* the search strategy development process (Supplementary Information file 1),</li> <li>* the search strategies/terms for all databases (Supplementary Information file 2),</li> <li>* the search strategies/terms for supplementary searches (Supplementary Information file 3)</li> <li>* the methodological domains included in the risk of bias assessment criteria (Supplementary Information file 4) and</li> <li>* separate PRISMA flow diagrams for both the initial and the updated searches (Supplementary Information file 5).</li> </ul>
The method used to carry out the systematic review is not clearly structured and defined so that the reader could replicate the study.	<p>The method section has been restructured to reflect eligibility criteria, information sources, search strategy, selection and data collection process, risk of bias assessment, synthesis methods, certainty assessment and PPI to help ensure that the reader can replicate the study.</p>

	<p>The GRIPP short form has been submitted as a supplementary file for editor only.</p> <p>As per the criteria for the PRISMA checklist ('Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated'), the</p> <p>Supplementary Information file 1 now contains the search strategy development process,</p> <p>Supplementary Information file 2 now contains the search strategies/terms for all databases</p> <p>Supplementary Information file 3 now contains the search strategies/terms for supplementary sources. Summary of number of records identified (database and supplementary) for both the initial and updated searches</p> <p>Supplementary Information file 4 now contains risk of bias assessment criteria, definitions, and grades</p> <p>Supplementary Information file 5 now contains separate PRISMA flow diagrams for both the initial and updated searches. Contains references for those studies which were excluded from the updated review.</p>
The validity of the instruments included is not mentioned.	The validity of each reviewed tool (conceptual, construct and convergent) was reported in Table 3. The last paragraph of the results section also provides detail on the validity of all included instruments.
The methods need to be revised, and the results should be rewritten more clearly.	Although reviewer 2 felt that 'this is an excellent discussion of methodology', changes have been made by the authors to improve reader clarity in both the Methods and Results sub-sections.
Finally, the conclusions do not support the findings, it is too unspecified.	Thank you for highlighting this. The conclusion has been rewritten to become more focused and meaningful.
The authors should either change the paper to a literature search on the topic or the PROSPERO protocol should be followed.	<p>The PROSPERO protocol has been followed to ensure a comprehensive systematic search, except for the points below which are under revision with PROSPERO:</p> <ol style="list-style-type: none"> <li>1. New 'Actual Start Date' with reason provided to reflect time-lag between preliminary search and actual search start.</li> <li>2. Both's criteria was used in this review to additionally assess the methodological quality of included studies.</li> <li>3. Exclusion criteria will now include 'Assessment tool already identified in original search' (necessary to include due to updated search request from Editor).</li> </ol> <p>All necessary amendments /revisions have been flagged to PROSPERO by first author.</p>
The topic deserves being published.	Thank you for recognizing the value of this work.

Reviewer: 2 Dr. Fernanda Bellodi Schmidt, University of Miami Miller School of Medicine	Author(s) Response
Upon reading the abstract, it was not clear to me that the manuscript was focused on the needs of caregivers of pediatric patients with dermatologic disease. Paediatrics is not mentioned in the abstract at all.	Thank you for drawing our attention to this – the abstract has been amended to reflect participants/population as outlined in PROSPERO protocol.
The term "dermatological caregiver" seems misleading here and can be interpreted as a healthcare worker who provides dermatologic care. I would use instead caregivers of pediatric patients with dermatologic conditions or needs.	Thank you, this is very helpful. This has been amended to "caregivers of paediatric patients with dermatologic conditions".
Page 7, line 35 - Patient and public involvement (PPI)	This has been amended to include capitals.
I agree with importance of this review and how the overall health and quality of life of caregivers is overlooked. This is an excellent discussion of methodology and gaps in current assessment tools, however, would like to see comment on feasibility of routine application of these tools in clinical setting in the discussion. These tools are certainly very valuable for research purposes, but I am yet to meet a provider who routinely has the time and resources to apply this routinely in the increasingly demanding and busy clinical practices.	Great point, thank you. Barriers to screening/assessment have been identified. The benefit of developing future e-assessment tools has been included.
page 21, line 30 - The generalization that all or most skin diseases are "characterised by unpredictable episodes in symptom severity" is inaccurate.	We apologize, this was not the intended meaning. The line included in the original manuscript 'although skin disease is often characterised by unpredictable episodes in symptom severity' has been changed to 'although skin disease may be characterised at times by unpredictable episodes in symptom severity'. References for this point are included.
On your discussion, when providing recommendations for key directions for future research, I would suggest commenting on the practical application of these assessment tools - they are only valuable and impactful if they are simple enough to be used on a daily basis in practice.	Thank you for this point. Your suggestion is now reflected in the discussion. Barriers to screening/assessment have been identified. Benefits of developing future e-assessment have been included.

## VERSION 2 – REVIEW

<b>REVIEWER</b>	Tomas Aragones, Lucia University of Zaragoza
<b>REVIEW RETURNED</b>	14-Nov-2021
<b>GENERAL COMMENTS</b>	The manuscript is much improved and I recommend it be considered for publication.

## VERSION 2 – AUTHOR RESPONSE

Reviewer 1 Comments to Authors	Author(s) Response
The manuscript is much improved, and I recommend it be considered for publication	Thank you. We are very grateful for your comments which we feel have undoubtedly helped to restructure and strengthen this manuscript.